SCHOOL-BASED ASSESSMENT METHODS FOR IDENTIFYING STUDENTS WITH ANXIETY: A SURVEY OF SCHOOL PSYCHOLOGISTS

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Bradford Fletcher
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SCHOOL-BASED ASSESSMENT METHODS FOR IDENTIFYING STUDENTS WITH ANXIETY: A SURVEY OF SCHOOL PSYCHOLOGISTS

Name: Fletcher, Bradford

APPROVED BY:

______________________________
Elana Bernstein, Ph.D.
Advisory Committee Chair
Clinical Faculty
Department of Counselor Education
& Human Services

______________________________
Susan Davies, Ed.D.
Committee Member
Associate Professor
Department of Counselor Education
& Human Services

______________________________
Scott Hall, Ph.D.
Committee Member
Associate Professor
Department of Counselor Education
& Human Services
ABSTRACT

SCHOOL-BASED ASSESSMENT METHODS FOR IDENTIFYING STUDENTS WITH ANXIETY: A SURVEY OF SCHOOL PSYCHOLOGISTS

Name: Fletcher, Bradford
University of Dayton

Advisor: Dr. Elana Bernstein

The present study investigated current anxiety assessment procedures used by practicing school psychologists, as well as the most common barriers they see to the assessment process. A statewide survey of practicing school psychologists was conducted. The participants included (n=111) licensed school psychologists employed in the state of Ohio, who were also members of the Ohio School Psychologists Association (OSPA) listserv or who attended the OSPA spring (2013) conference. Findings indicated the most frequently used assessment method was interviews, while the most frequently utilized measurement tool was the Behavior Assessment Scale for Children, 2nd edition (BASC-2). The most frequently reported barrier to using evidence-based assessment methods for anxiety in the schools was the lack of available time. Implications for assessing anxiety in school-age youth are discussed.
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CHAPTER I
INTRODUCTION

School psychologists are responsible for identifying, assessing, and treating children for a variety of disorders, with assessment accounting for nearly half of a school psychologist’s time at school (Stinnett, Havey, & Oehler-Stinnett, 1994). Anxiety is the most prevalent mental disorder among school age children (Ginsburg & Kingery, 2007); however, assessing anxiety symptoms can be a difficult task for school psychologists due to the multidimensional nature of anxiety. As a result, anxiety disorders are often overlooked, resulting in negative consequences that can persist well into adulthood (Ginsburg & Kingery, 2007).

The consequences associated with anxiety symptoms can adversely affect academic achievement and development (Merikangas et al., 2011). Thus, it is critical that school psychologists fulfill their responsibility of identifying and assessing students who exhibit anxiety symptoms as early as possible. In assessing for anxiety, school psychologists should follow best practice by utilizing a multi-method and multi-informant approach using empirically supported assessment measures (NASP, 2002). The present study examined the assessment practices of school psychologists in Ohio to assess anxiety in the school setting. Furthermore, barriers to conducting appropriate assessment for anxiety in the school setting were examined.
CHAPTER II
LITERATURE REVIEW

Experiencing anxiety in the form of fear is a natural response and a normal part of a child’s development. Some degree of anxiety or fear does not necessarily warrant concern. However, when these feelings of fear become excessive and interfere with a child’s daily functioning, they become a concern that requires clinical attention (Myers & Winters, 2002). In the school setting, this type of clinical attention is often provided by the school counselor or psychologist.

The following literature review examines prevalence rates of anxiety disorders, the impact of anxiety on students, and the effects of unidentified anxiety disorders. The identification process and the role of the school psychologist is also addressed. Finally, research on best practices in anxiety assessment is examined including the advantages and disadvantages of the most commonly used assessment methods.

Etiology of Anxiety

The Diagnostic Statistical Manual (DSM-V) criteria for an anxiety disorder is met when an individual's anxiety is excessive and uncontrollable, requires no specific external stimulus, and manifests with a wide range of physical and affective symptoms, including changes in behavior and cognition (American Psychiatric Association, 2013).

Prevalence. Anxiety disorders are among the most prevalent mental health illnesses worldwide (Wittchen & Jacobi, 2005). In a national survey, approximately 29%
of survey respondents met the DSM-IV criteria for an anxiety disorder at some point in their life (Kessler et al., 2005). A national study of lifetime prevalence rates among adults and youth returned results indicating that between 8 and 27% of individuals have an anxiety disorder (Costello, Egger & Angold, 2005). A separate study found that 25.1% of adolescents, ages 13-18 has an anxiety disorder and 5.9% of adolescents ages 13-18 have a severe anxiety disorder (Merikangas et al., 2011).

Impact. Students suffering from anxiety may experience decreased self-esteem, distorted emotions, and an inability to concentrate (Alfano, Beidel & Turner, 2006). Physical symptoms of anxiety may include autonomic nervous system activity, increased heart rate and blood pressure, perspiration, difficulty falling and remaining asleep, heightened feelings of irritability, muscle tension and tremors, diffuse abdominal pain, gastrointestinal distress, and difficulties maintaining concentration (American Psychiatric Association, 2000; House, 2002; Kendall, 2012). All of these issues can affect school performance.

Mychailyszyn et al (2010) compared students known to have an anxiety disorder to students without an anxiety disorder. They found that anxiety can significantly hinder an individual's level of school functioning including academic performance, class behaviors, emotions, and social interactions. In contrast, the students without an anxiety diagnosis demonstrated significantly higher levels of school functioning than those with an existing anxiety diagnosis.

Consequences of Unidentified Anxiety

Although anxiety disorders are among the most common mental illnesses found in the school setting, and the majority of youth suffering from anxiety do not receive the
level of attention needed. A recent study by Merikangas et al (2011) found that 80% of children with an anxiety disorder do not receive proper mental health services. This is a major problem for schools, especially considering the increased likelihood of academic underachievement, poor behavior, and substance abuse that often results from an anxiety disorder (Rothi & Leavey, 2006).

**Long-term consequences.** The negative consequences experienced by a student with an anxiety disorder can persist well into adulthood, especially if that student did not receive interventions, accommodations, or other benefits that come from an accurate multi-method and multi-informant assessment (Alfano, Beidel & Turner, 2006).

An anxiety disorder that goes unnoticed has the potential to manifest into a chronic disturbance that may negatively impact life outcomes and adult functioning (Ollendick & King, 1994). For example, anxiety may cause social skills impairments, which can lead to avoidance of social interactions, restricting the development of social skills as the individual matures, thereby causing lifelong social impairments (Ginsburg & Kingery, 2007). This supports the finding that anxious children are frequently seen as less popular when compared to individuals without an anxiety diagnosis (Nelson, et al., 2005).

**The nature of internalizing disorders.** The nature of internalizing disorders influences the under identification of anxiety disorders, particularly in schools. Internalizing disorders in children and adolescents are often inadvertently overlooked by school psychologists simply because the symptoms are difficult to observe (Keiley, Lofthouse, Bates, Dodge, & Pettit, 2003). In contrast to externalizing disorders that are considered overt, meaning the symptoms are easily observed and often disruptive to
others, internalizing disorders are considered covert (Merrell, 2008). Individuals diagnosed with an internalizing disorder will often attempt to conceal its existence. Even without the individual attempting to hide their anxious behavior, internalizing symptoms are naturally difficult to observe because they are experienced within the individual (Miller & Jome, 2008).

The most prevalent internalizing disorders include generalized anxiety disorder, major depression, obsessive compulsive disorder, anorexia nervosa, bulimia nervosa, school phobia, post-traumatic stress disorder and self-mutilation (Miller & Jome, 2008). A school psychologist should implement an assessment method that can accurately measure the symptoms associated with these disorders. In Miller and Jome’s (2008) national survey of school psychologists, the researchers found that self-reports were the most frequently used assessment method for each of the aforementioned disorders; parent and teacher rating scales were the second most frequently reported method.

Identification

This section describes the role of the school psychologist in assessing anxiety and the process of identifying an individual to receive special education support services for anxiety disorders. Next, the importance of early identification is addressed. The literature review concludes with an examination of the internalizing nature of anxiety and how this impacts the assessment process.

Role of the school psychologist. School psychologists are increasingly asked to focus on the prevention and treatment of emotional problems in their schools (Miller & Jome, 2008). Recently there are increased efforts towards utilizing school-based resources to treat internalized disorders (Mifsud & Rapee, 2005). This comes with good
reason; school psychologists have easy access to students with anxiety and have the opportunity to provide treatment and accommodations for these students in many different settings. Furthermore, identifying and providing services to students with anxiety in the school setting has ecological validity— the benefits of the treatment can be realized in the setting in which they are most important (i.e., where change in behavior is needed; Herzig-Anderson, Colognori, Fox, Steward, & Warner, 2012). For example, a student who suffers from anxiety when speaking in front of a large group can learn skills to reduce this anxiety while having the opportunity to practice these newly learned skills in the setting where the treatment occurs (school). The school is essentially the least restrictive environment in which to provide treatment and support for student with anxiety. Having access to an entire student body and the ability to observe anxious behavior in multiple settings makes the school psychologist an ideal person to identify and assess anxiety disorders in school-age youth. A national survey of school psychologists indicated those working in schools felt it was their responsibility to assess children who exhibited symptoms of anxiety over any other professional in or out of the school setting (Miller & Jome, 2008). This indicates that school psychologists feel responsible to assess anxiety in the schools, thereby highlighting the importance of school psychologists having access to a variety of evidence-based assessment methods and staff, including school counselors, to assist in fulfilling this responsibility.

Special education services. In the public school system, students who have symptoms of an anxiety disorder may qualify for special education support services if the anxiety disorder is so severe that it impacts school functioning and warrants specialized instruction. Through effective assessment a student may be identified under two
categories qualifying him/her for support services. The first category is labeled as Emotional Disturbance (ED), which requires the student to have demonstrated impairment over an extensive time period in which the impairment either debilitates or adversely affects their school performance. This impairment can negatively influence academic ability or behavioral responses such as the inability to learn or the inability to control emotions. The second category is Other Health Impairment (OHI). To meet criteria for the OHI classification, the student must have symptoms that negatively impact academic performance and require special education services to address related academic deficits (Code of Federal Regulations, Title 34, Section 300. 7(c)(9)). Because the role of assessing anxiety in the school is primarily ascribed to the school psychologist, it is crucial that he or she is aware of these regulations and policies. However, it is also important to consider students who may not qualify for special education, but who still experience anxiety symptoms. Interventions and strategies should still be implemented if anxiety adversely affects a student, even if that student does not require special education, in order to provide the necessary support and reduce the likelihood of an eventual diagnosis.

**Early identification.** Early identification yields early intervention. Furthermore, identifying students who demonstrate anxiety symptoms prior to entering elementary school enables the child to master coping skills early on, ensuring that these skills are in place in times of difficulty, such as transitioning into a new school. Building coping skills early in life reduces the likelihood that the child’s anxiety will interfere with learning as they advance through school (Hirshfeld-Becker & Bierderman, 2002). Sherbourne, et al (2009) state that early identification can directly increase the
effectiveness of an intervention plan. Implementing intervention services early means that an individual’s anxious or maladaptive behaviors have less time to become engrained and therefore are easier to modify or eliminate. Early intervention is crucial to long-term behaviors and successes; an anxiety disorder early in life can disrupt the normal course of development causing potentially lifelong impairments.

Early identification often leads to the opportunity of intervening at an early age where parental involvement is the highest. For example, the preschool years are a time when parents are centrally involved in the child’s life and have significantly more influence than other adults or peers. When parents are more involved, they can assist with teaching new habits and replacement behaviors to help the child cope with anxious thoughts. This will generalize advancements made at school into the child's home life (Hirshfeld-Becker & Bierderman, 2002). In order for early identification to occur, school psychologists must implement an effective assessment process using assessment methods that best match the age of the individual being assessed (Schniering et al., 2000).

**Anxiety Assessment**

A variety of factors influence the manifestation of anxiety; school psychologists must be aware of these when selecting assessment methods. Assessment is most effective when it directly informs intervention strategies. School psychologists need to select and utilize assessment methods that have treatment utility, are efficient, and provide helpful information about the child. Important factors to assess with anxiety include overt behavior, cognitive differences, somatic responses, and emotional factors. In order to account for such factors during the assessment process, the school
psychologist must use several methods, across multiple contexts, and from multiple sources (Morris & March, 2004).

**Best practice.** According to the National Association of School Psychologists (NASP), when assessing students for behavioral or emotional difficulties, it is considered best practice to use multiple methods before drawing conclusions. These methods may include behavioral observations, self-reports, and/or interviews (NASP-PPE, IV, C, #3). NASP further suggests that in addition to multiple assessments, information should be obtained from a variety of individuals, such as teachers, parents, students, intervention assistants, or other school psychologists.

A multi-method and multi-informant approach is particularly important for anxiety assessment given that anxiety is a multidimensional construct. The psychological/physiological feelings associated with anxiety consist of a variety of elements, including behavioral, cognitive, somatic and emotional factors. A school psychologist should utilize a variety of assessments from a variety of sources to address each of these factors (Kendall, 2012). After the assessment, the findings can then be used to guide case conceptualization. In other words, information from the assessments should be used to form hypothesis and make future decisions regarding treatment (Mennuti & Christner, 2012). After conceptualizing the basis of the anxiety symptoms in terms of the frequency, severity, antecedents, aggravating and alleviating factors, an appropriate intervention plan can be constructed. To gather such information, a school psychologist can utilize a variety of methods. When selecting a method to use, a school psychologist should select those that are culturally and developmentally relevant to the individual as
well as account for the individual’s understanding of emotion and his/her current level of self-awareness (Schniering et al., 2000).

**Interviews.** Interviews can occur between the school psychologist and the student, or with parents, teachers, or other staff who work closely with the student. Interviews can range in format from unstructured, semi-structured, or structured. When possible, *structured interviews* are recommended; however, this may not be feasible in a school. Structured interviews provide standardized content, format, and questions for arriving at diagnostic conclusions based on the information obtained. An example of a structured interview is the *Anxiety Disorders Interview Schedule for Children* (ADIS; Silverman & Albano, 1996). The ADIS is an empirically supported assessment tool that yields good reliability over time with high inter-rater reliability among clinicians (Silverman, Saavedra, & Pina, 2001; Lyneham, Abbott, & Rapee, 2007). An *unstructured interview* is considered more informal; for example, questions are not predetermined and rely on social interaction between the interviewer and the interviewee. This can be less threatening for the interviewee (Smith, 1998); however, an unstructured interview often yields substantial inconsistencies in outcomes (Summerfeldt & Antony, 2002). *Semi-structured interviews* allow informants the freedom to express their anxiety symptoms in their own terms. This type of interview works best in the school setting because it is not constrained by the standardized format of structured interviews and it yields the reliable, comparable results that unstructured interviews may lack (Kisely & Kendall, 2011).

**Child self-report measures.** Self-report questionnaires can be a very quick and cost-effective resource for school psychologists when assessing symptoms of anxiety. The process of filling out a self-report is less threatening to students than other
assessment methods (Morris & March, 2004). Students can share anxiety symptoms quickly and discretely, which is valuable considering the covert nature of internalizing disorders, where individuals might find it difficult to disclose information about their symptoms. Students are more comfortable disclosing information about mental illness if the threat of immediate judgment is reduced (Morris & March, 2004). Self-report measures are an essential part of the assessment process for anxiety due to their ability to measure the individual's internal thoughts/feelings and the subjective nature of their anxiety.

In Miller and Jome’s (2008) national survey of school psychologists, the researchers found that participants rated the child self-report method higher in terms of its importance and frequency when compared to other common assessment methods including standardized intelligence tests, parent rating scales, projective techniques, teacher rating scales, behavioral observations, and visual-motor integration tests. Even though self-report measures were rated the highest in their study, a school psychologist should consider several factors before administering a self-report, including the individual’s age, knowledge of symptoms, and self-awareness. A self-report's validity depends in part on the individual's age. Young children may not have the metacognition to effectively report cognitions and somatic symptoms (Stone & Lemanek, 1990). This is an important consideration for school psychologists, as only assessment methods that are developmentally appropriate for the individual and his/her understanding of emotions should be used (Schniering et al., 2000).

Some self reports are considered to be broadband measures, meaning they are able to inquire about symptoms for many emotional disorders. These are commonly used as
the initial screening tool for anxiety symptoms. Examples of broadband measurement tools include the *Behavior Assessment Scale for Children, 2nd edition* (BASC-2) and the *Achenbach System of Empirically Based Assessment* (ASEBA). When these screeners indicate anxiety concerns, the psychologist may choose to administer a narrowband measure, which focuses solely on anxiety specific symptoms. Some examples of commonly used anxiety-specific self-report questionnaires include: the Spence Children’s Anxiety Scale (SCAS; Spence, 1998), the Multidimensional Anxiety Scale for Children (MASC; March, Parker, Sullivan, Stallings, & Conners, 1997), and the Revised Children’s Manifest Anxiety Scale (RCMAS-2; Reynolds & Richmond, 1997).

**Parent and teacher rating scales.** An excellent method to assess student anxiety is through consultation with the individual’s caregivers and teachers. The perspective of a parent or teacher who has extensive experience with the child can be a valuable and informative tool. Rating scales completed by parents or teachers can provide insight into the symptoms and behaviors of individuals with anxiety disorders that a self-report or classroom observation may miss, such as patterns in behavior (i.e., avoidance, somatic responses, etc.), behavior that occurs outside of school, and the quality of relationships (Morris & March, 2004). This method provides a structure to an assessment and can be used in a variety of environments to gather data from a variety of sources (i.e., multi-informant). However, there are some drawbacks to this method. Parents and/or teachers may under-report symptoms due to a lack of awareness of the child’s anxiety, for reasons mentioned above such as the silent nature of internalizing disorders or invisible anxiety symptoms occurring outside of parent/teacher knowledge (Comer & Kendall, 2004). Parents who are prone to anxiety themselves may over-report their child’s anxiety.
symptoms due to their own hypervigilance or excessive worry of a possible existing anxiety disorder (Frick, Silverthorn, & Evans, 1994). When deciding between a parent or teacher rating scale, research shows that the mother, in particular, provides the most accurate report because they are more aware of the internalizing symptoms that accompany anxiety (Bergeron, Floyd, McCormack, & Farmer, 2008).

Examples of effective empirically supported parent and teacher rating scales include: the Child Anxiety Impact Scale-Parent Version, Child Behavior Checklist (CBCL), the *Behavior Assessment Scale for Children, 2nd edition* (BASC-2), or the Teacher Report Form (TRF; (Langley, Bergman, McCracken, & Piacentini, 2004).

**Behavioral observations.** Behavioral observations can be a valuable assessment tool for anxiety. Observations can be conveniently conducted in the school setting, which provides many opportunities for anxiety symptoms to reveal themselves, including social interactions and academic stressors. The goal of a behavioral observation is to better understand and identify the causal factors associated with an individual’s anxiety response, along with existing exacerbating and mitigating factors (Morris & March, 2004). The nature of internalizing disorders makes this a challenging task for school psychologists to do alone, which is why multiple methods of assessment should be used along with behavioral observations, with observations occurring at varying times from varying sources, during which school psychologists should be looking for symptoms such as behavioral avoidance, fidgeting, shaking, sweating, heavy breathing, negative self-talk, or irritability (Chorpita & Taylor, 2002). Observations can be classified as either formal or informal. An informal observation is unstructured, where the primary purpose is to generate hypotheses about a behavior. The information gathered in this type of
observation is often anecdotal. A formal observation is structured and systematic; this form of observation includes techniques such as interval sampling, event frequency, or intensity scales (Morris & March, 2004).

**Accountability.** The National Association of School Psychologists (NASP) emphasizes a multi-method and multi-informant approach is the most efficient way of assessing the multidimensional nature of anxiety (NASP, 2002). There are a variety of empirically supported assessments and techniques to help psychologists accomplish this multi-method and multi-informant approach. However, research suggests the majority of students with mental health issues are not receiving services (Allen, 2011). Based on the understanding that anxiety disorders can cause a variety of impairments that can mature into lifelong difficulties, it is imperative that school psychologists are held accountable for implementing this type of assessment approach (Ginsburg & Kingery, 2007). Nonetheless, there is a lack of research examining whether school psychologists are in fact implementing a multi-informant and multi method approach in their assessment of anxiety.

**The Present Research Study**

Given the high prevalence rates of anxiety among children and adolescents, as well as the short- and long-term consequences associated with anxiety symptoms, it is critical that schools psychologists appropriately assess and identify students experiencing anxiety as early as possible. School psychologists should utilize a multi-method and multi-informant approach to assess for anxiety.

To gain a deeper understanding of what current school psychologists are using to identify and assess students with anxiety in their school, a survey was administered to
practicing school psychologists in Ohio. The survey was designed to provide insight on the methods and procedures that school psychologists use to assess anxiety disorders. The survey also addressed barriers to the assessment process, such as lack of time, lack of available resources, high cost of empirically supported assessments, and/or lack of parental cooperation to help inform school-based practices in the assessment of anxiety.
CHAPTER III

METHOD

Research Questions and Hypotheses

The present study sought to answer the following questions: (1) what assessment methods are most frequently used by school psychologists to identify anxiety disorders in the school setting, and (2) what potential barriers for assessing anxiety do practicing school psychologists most frequently report?

It was hypothesized that practicing school psychologists will rank self-reports as the most frequently used and most important assessment method for identifying anxiety disorders. It was also hypothesized that respondents will report a lack of available resources (e.g. time, cost, feasibility of training teachers and staff for assessment, and/or parental cooperation) to adhere to NASP’s stated best practices for assessing anxiety in the schools (Miller & Jome, 2008).

Research Design

To answer the research questions, quantitative data collection occurred through implementation of an electronic survey (see Appendix A) in which participants were recruited using a sequential mixed-mode design. This research design was selected to allow access to a large sample and increase response rates. Results were compared across participants.
Participants and Setting

The sample included \( n = 111 \) licensed school psychologists employed in the state of Ohio, who were also members of the Ohio School Psychologists Association (OSPA) listserv or who attended the OSPA spring (2013) conference. The sample was comprised of psychologists from varying backgrounds and experience, of whom 87% had received a masters and/or educational specialist degree and 13% obtained a doctorate. The median years of experience among respondents was between six and ten years. See Table 1 for participant demographic information.

Table 1

Participant Demographics

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>22-29 years</td>
<td>26</td>
<td>22%</td>
</tr>
<tr>
<td>30-39 years</td>
<td>33</td>
<td>28%</td>
</tr>
<tr>
<td>40-49 years</td>
<td>18</td>
<td>15%</td>
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<tr>
<td>50-59 years</td>
<td>25</td>
<td>21%</td>
</tr>
<tr>
<td>60+ years</td>
<td>17</td>
<td>14%</td>
</tr>
</tbody>
</table>

Education

<table>
<thead>
<tr>
<th>Degree</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master’s</td>
<td>52</td>
<td>44%</td>
</tr>
<tr>
<td>Education Specialist</td>
<td>51</td>
<td>43%</td>
</tr>
<tr>
<td>Doctorate</td>
<td>15</td>
<td>13%</td>
</tr>
</tbody>
</table>

School District

<table>
<thead>
<tr>
<th>Type</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charter</td>
<td>9</td>
<td>8%</td>
</tr>
</tbody>
</table>
Private 14 13%
Public 92 83%
Rural 29 26%
Suburban 29 26%
Urban 22 20%

*Respondents could select more than one option.

Materials

Quantitative data were collected using an electronic survey (see Appendix A). The survey consisted of eight questions designed to assess participants’ personal and school district practices regarding anxiety assessment. The survey was constructed and hosted on www.qualtrics.com. The topical areas covered on the survey included: (1) age, (2) highest education degree, (3) years of practice, (4) frequency of anxiety related referrals, (5) type of school district (rural, urban, or suburban), (6) types of assessment methods used, (7) perceived importance of assessment methods, and (8) potential barriers to the assessment process.

Reliability and validity of the electronic survey were established by piloting the survey with school psychology (n = 10) interns enrolled at the University of Dayton. The interns’ involvement in the pilot test was voluntary. Interns were prompted prior to completing the survey that their responses should reflect their current internship locations and experiences. Information regarding the survey content, length of time to complete it, and formatting were obtained during the pilot and informed the changes to the final survey given to participants. Several changes were made to the layout and content of the survey based on qualitative feedback. Changes to the survey included: moving the
demographic and background information to the beginning of the survey, rewording several questions for clarity purposes, inserting additional response choices for specific questions, and finally, all qualitative questions were removed in an attempt to shorten the overall length of the survey.

**Procedures**

Data collection began once approval was granted from the University of Dayton’s Institutional Review Board (IRB). Participants were recruited using two methods. The first method consisted of emailing the electronic survey to practicing school psychologists in Ohio via the email listserv of the Ohio School Psychologist Association (OSPA). A cover letter accompanied the email, explaining to the participants the purpose of the survey (see Appendix B). To increase the response rate, a follow-up email was sent to those who did not respond, three weeks after the initial email was sent.

For the second method, participants were recruited in person during the OSPA spring Conference (2013). Flyers were used to recruit participants to take the electronic survey (see Appendix C). Participants were given access to the survey through the use of computers and tablets made available by the researchers with the link to the electronic survey ready to be filled out. For both methods, consent was voluntary, and participants agreed to informed consent by clicking through the survey. A disclaimer was placed in the follow-up email, as well as on the recruitment poster, requesting that individuals who had already participated in the study not take the survey again. No information collected in the survey was connected back to the identity of a participant. All data were reported in the aggregate, thus participants’ names were not connected with their responses.
To increase participant involvement, an incentive was advertised, informing participants of the chance to win one of four $25 dollar Amazon gift cards that were distributed approximately 3 weeks after the OSPA spring conference. Each participant from the face-to-face recruitment method and the web-based method were entered in the random drawing.
CHAPTER IV

RESULTS

The quantitative data collected from the electronic survey were analyzed using descriptive statistics. Nominal data were collected for: (a) background and demographic information, (b) indicating assessment methods used by psychologists, and (c) the type of evidence-based assessment measure used. Ordinal data were collected for perceived importance of assessment method and identifying the greatest barriers to assessing anxiety in the school setting.

Research Question 1

Assessment method. Descriptive statistics were used to analyze which assessment methods were most frequently used by school psychologists when assessing students for anxiety in the school setting. Results indicate that interviews were the most frequently used method and self-reports was the least frequently used method (See Table 2).

Measurement tool. The survey gathered data to determine what types of evidence-based assessment measures are currently used in the school setting. Participants were encouraged to select all response choices that applied. Results show the Behavior Assessment System for Children, second edition (BASC-2) was the most frequently utilized measurement tool when assessing for anxiety (See Table 3) in the school setting. Participants were given the option to select other as an answer choice and list an evidence
based measurement that was not included in the answer choices. Their responses indicated the use of measurement tools such as the Conners Rating Scale and the Achenbach Self-report; however, their percent of n \(^a\) was less than 3% for each measure.

Table 2

**Assessment Methods used for Identifying Anxiety**

<table>
<thead>
<tr>
<th>Method</th>
<th>Frequency</th>
<th>Percent of n (^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews</td>
<td>101</td>
<td>90%</td>
</tr>
<tr>
<td>Self-Report</td>
<td>82</td>
<td>73%</td>
</tr>
<tr>
<td>Parent Rating Scale</td>
<td>100</td>
<td>89%</td>
</tr>
<tr>
<td>Teacher Rating Scale</td>
<td>99</td>
<td>88%</td>
</tr>
<tr>
<td>Behavioral Observation</td>
<td>96</td>
<td>86%</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
<td>10%</td>
</tr>
</tbody>
</table>

*Participants were able to select more than one answer; therefore, the total number of responses is greater than the number of participants (\(n=111\)). The statistic “Percent of n” represents the percent of individuals that selected a particular answer choice. These percentages are not mutually exclusive of one another.

Table 3

**Evidence Based Assessments used for Identifying Anxiety**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Frequency</th>
<th>Percent of n (^a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety Disorders Interview Schedule for Children (ADIS)</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Spence Children’s Anxiety Scale (SCAS)</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Multidimensional Anxiety Scale for Children (MASC)</td>
<td>12</td>
<td>11%</td>
</tr>
<tr>
<td>Revised Children’s Manifest Anxiety Scale (RCMAS-2)</td>
<td>6</td>
<td>5%</td>
</tr>
<tr>
<td>Children Anxiety Impact Scale</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Behavior Assessment System for Children-2(^{nd}) edition (BASC-2)</td>
<td>102</td>
<td>92%</td>
</tr>
</tbody>
</table>
Teacher Report Form (TRF)  41  37%
Screen for Child Anxiety Related Disorders (SCARED)  10  9%
Other  21  19%

*Participants were able to select more than one answer; therefore, the total number of responses is greater than the number of participants (n=111). The statistic “Percent of n” represents the percent of individuals that selected a particular answer choice. These percentages are not mutually exclusive of one another.

Research Question 2

Potential barriers. Descriptive statistics were used to analyze the potential barriers practicing school psychologists most frequently report when assessing anxiety. Results indicate that available time (25%), available resources (22%), and other job responsibilities taking precedence (22%) were the three strongest, and most frequently reported barriers (See Table 4) to using evidence-based assessment methods for anxiety in the school.

Table 4

Potential Barriers to Assessment (Ranked 1-3, With 1 Being the Largest/Strongest)

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Frequency of 1</th>
<th>Frequency of 2</th>
<th>Frequency of 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Available Time</td>
<td>22</td>
<td>21</td>
<td>8</td>
</tr>
<tr>
<td>*Available Resources</td>
<td>19</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>Cost of Services</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Feasibility of training teachers and staff</td>
<td>12</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>*Other Job Responsibilities Taking Precedence</td>
<td>19</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
<td>Parental Consent</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Category</td>
<td>Value 1</td>
<td>Value 2</td>
<td>Value 3</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Willingness of Child to Participate</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Currently Do Not See Any Barriers</td>
<td>13</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Highlighted as the strongest and most frequently reported barriers.*
CHAPTER V

DISCUSSION

Review of Purpose

Anxiety is the most prevalent mental health problem among school age children (Ginsburg & Kingery, 2007). It is estimated that 2 to 27% of children and adolescents have an anxiety disorder, and research suggest that many more experience subclinical (undiagnosed) levels of anxiety (Costello, Egger, & Arnold, 2005; Mychailyszyn, Mendez, & Kendall, 2010). Even more concerning is that only 6% of youth receive services to treat their anxiety symptoms (Esser, Schmidt, & Woerner, 1990). This is partially due to the fact that school psychologists often inadvertently overlook internalizing disorders, such as anxiety, simply because of its covert, multidimensional nature (Ginsburg & Kingery, 2007; Keiley et al., 2003). In order to provide mental health services in the school setting, it is imperative that psychologists and counselors utilize a multi-method and multi-informant approach, using empirically supported assessment measures and methods to identify students who exhibit anxiety symptoms as early as possible (NASP, 2002). The purpose of the present study was to examine the assessment methods and measurement tools used by practicing school psychologists and to better understand the barriers they face during the assessment process.
Findings Relative to Hypotheses

It was predicted that practicing school psychologists would rank self-reports as the most frequently used and most important assessment method for identifying anxiety disorders. Findings indicate that the majority of school psychologists reported using self-reports; however, the most frequently used method was interviewing. The particular format school psychologists use to conduct interviews was not examined and thus is unknown. Even though several methods of screening anxious symptomatology and existing disorders are supported by research, few studies have investigated the optimal method. School psychologists are left to consider the advantages and limitations of each method.

The study also predicted that school psychologists would report a lack of available resources, time, and/or parental cooperation to administer a multi-method and multi-informant assessment. Even though the school psychologists reported these barriers, the findings suggest that a multi-method and multi-informant approach is in fact being implemented. Thus, it appears that school psychologists are attempting to efficiently manage their time and resources when screening for anxiety symptoms, continuing to implement best practices despite busy schedules and multiple obligations.

Implications

Findings suggest that the majority of school psychologists are following best practice by implementing a multi-method and multi-informant approach using empirically supported assessment measures. The majority of school psychologists indicated they use interviews, questionnaires and behavioral observations as assessment methods. The majority of school psychologists also reported the use of multiple
informants by utilizing parent rating scales, teacher rating scales, and student self-reports. The most frequently used assessment tool was the evidence-based *Behavior Assessment System for Children-2nd edition* (BASC-2).

Findings indicate that available time, available resources, and other job responsibilities taking precedence were the most frequently reported barriers to implementing prevention and intervention services. Nonetheless, results suggest current school psychologists are taking into account these potential barriers to assessing anxiety and utilizing the more efficient assessment methods in order to provide a multi-informant and multi-method assessment. One method to avoid assessment barriers is implementing practical, time efficient assessment methods, such as questionnaires and rating forms. This could be one factor explaining the large number of school psychologists reporting using the BASC-2.

**Limitations**

Several limitations exist with the present study. The sample population was limited to school psychologists in Ohio who were also members of OSPA, thus limiting the generalizability of findings nationally. The sample could potentially be biased, as respondents with a general interest in anxiety may be more inclined to participate in the survey. This concern is especially true considering the focus of the OSPA conference was on mental health. This could have resulted in an overrepresentation of participants already aware of appropriate assessment procedures who were therefore already implementing multi-method and multi-informant assessments in their schools.

As with any survey design, participant honesty cannot be measured. In other words, the survey could not determine whether or not participants were being truthful
with their responses. It is possible that participants responded to questions in a way that may be viewed positively by others, rather than truly representing their schools’ current assessment practice. This is known as the social desirability bias (Crowne & Marlowe, 1960). Finally, despite providing a disclaimer on both the recruitment follow-up email and recruitment poster, there exists a possibility that participants may have filled out the survey more than once (either twice online, or once online and once at the OSPA conference), thereby skewing the data.

**Future Research**

Future research should target the specific age of the students being assessed by school psychologists; this can help determine how assessment practices differ based on varying age groups. For example, our study reported a lower use of self-reports than was expected. Psychologists employed in an elementary school may choose not to use self-reports based on their students’ underdeveloped metacognition or limitations to self-evaluate, and those psychologists may be more willing to conduct an interview.

The most frequently reported evidence-based assessment was the BASC-2. Future research could evaluate the awareness of practicing school psychologists in terms of newly-published or narrow-band measures specific to anxiety, to explain why the reliance on solely the BASC-2 is so high. Specifically, future research should examine school psychology graduate programs and professional development courses to investigate if training provided in these evidenced-based assessments, such as the MASC-2, SCARED or SCAS, used to exclusively assess anxiety related symptoms.
Conclusion

Due to the difficulties associated with assessing anxiety coupled with the immediate and long-term effects that result from anxiety going unidentified and untreated, it is imperative that school psychologists administer a multi-method and multi-informant approach when assessing students for anxiety symptoms. Moreover, school psychologists must take advantage of their unique position within the school system by using multiple methods of assessment, including interviews, observations, rating scales, and self-reports. Not only should multiple methods be used, but information should come from multiple sources, such as parents, teachers, and the students themselves. The current study found the majority of the surveyed school psychologists in Ohio were using multiple assessment methods and obtaining information from multiple sources, such as parents, school counselors, medical personnel and teachers. The most frequently cited anxiety assessment method was interviews. Results indicated that, among the multiple evidence-based measures available, the BASC-2 was the most frequently used. These results suggest future research should concentrate on school psychologist’s awareness and knowledge of newly published or narrow-band measures of anxiety and how graduate programs are training school psychologists to assess for anxiety in the school setting.
REFERENCES


Code of Federal Regulations, Title 34, Section 300.8(c)(4) *et seq.*

Code of Federal Regulations, Title 34, Section 300.7(c)(9) *(hereinafter C.F.R.)*.


APPENDIX A

SURVEY

Current Assessments and Interventions to Identify and Treat Anxiety in the School Setting: A Survey of School Psychologists

Directions: Please answer the following brief questions regarding your knowledge and current practice of assessing and treating anxiety in your school setting. Please answer all questions to the best of your ability. It is estimated that this survey will take approximately 10 minutes to complete. Thank you in advance for your time and help.

Preliminary Questions:
Are you currently employed in a school as a school psychologist? Yes No
If your answer was No to the above question, have you worked in a school as a school psychologist in the past three years? Yes No

*If you are not currently employed in a school as a school psychologist and have not been employed in a school as a school psychologist at some point in the past three years, thank you for your time, but you are not eligible to participate. Please discontinue this survey at this time.

Demographic and Background Information:
What is your age? 22-29 years 30-39 years 40-49 years 50-59 years 60+ years

Please mark your highest educational degree. Master’s Degree Educational Specialist Doctorate

Please mark the number of years of experience you have practicing as a school psychologist. Intern < 2 years
Please select all that apply in describing the type of school district you currently work in.

Charter
Private
Public
Rural
Suburban
Urban

Approximately how many referrals per school year do you receive for students who present with symptoms of anxiety?

< 5 students
5-10
11-20
21-30
> 30
I have worked < 1 yr
Other (specify): __________

Assessment of Anxiety Disorders in the Schools:
When identifying students with anxiety in your school, which of the following assessment methods do you and/or your district implement?
Please select all that apply:

- Interviews
- Child Self-Report Measures
- Parent Rating Scales
- Teacher Rating Scales
- Behavioral Observations
- Other (Please list) __________________________________________________________________________________

Please rank ALL of the following assessment methods from 1 (most important) to 5 (least important) based on their importance in the process of assessing anxiety in your school:

- Interviews
- Child Self-Report Measures
- Parent Rating Scales
- Teacher Rating Scales
- Behavioral Observations
Which of the following evidenced-based assessment measures do you and/or your district utilize when assessing students for anxiety? Please select all that apply:

_____ Anxiety Disorders Interview Schedule for Children (AIDIS)
_____ Spence Children’s Anxiety Scale (SCAS)
_____ Multidimensional Anxiety Scale for Children (MASC)
_____ Revised Children’s Manifest Anxiety Scale (RCMAS-2)
_____ Child Anxiety Impact Scale
_____ Behavior Assessment Scale for Children-2nd edition (BASC-2)
_____ Teacher Report Form (TRF)
_____ Screen for Child Anxiety Related Disorders (SCARED)
_____ Other (Please list) ________________________________________________

When considering potential barriers to assessing anxiety in your school setting, please select and rank your top 3, with 1 being the largest/strongest barrier:

_____ Available Time
_____ Available Resources
_____ Cost of assessments
_____ Feasibility of training teachers and staff for assessment
_____ Parental Cooperation
_____ I currently do not see any barriers to conducting anxiety assessment in my school district.
_____ Other (Please list) ________________________________________________

Do you or your school district currently conduct social-emotional screenings of which anxiety is a component?  
Yes  No

Interventions for Anxiety Disorders in the Schools:
In your school setting, who is primarily responsible for implementing anxiety prevention and intervention services?

_____ Intervention Specialists
_____ Outside mental health care providers working in the school setting
_____ School Counselors
_____ School Psychologists
_____ Social Workers
_____ General Education Teachers
_____ We do not currently provide interventions for students with anxiety.
_____ Other (Please list) ________________________________________________

The following two questions will be answered on a scale from 1 to 6, with 1 being not at all, and 6 being very much.
Do you feel that your graduate training adequately prepared you to provide prevention/intervention services for anxiety in the school setting?
More specifically, do you feel that your graduate training adequately prepared you to implement Cognitive-Behavioral Therapy (CBT) to prevent and treat anxiety in the school setting?

When providing interventions for students with anxiety in your school, which of the following prevention and intervention services do you and/or your district implement? Please select all that apply:

- Small group counseling
- Individual counseling
- Parent support groups
- Referral to outside agencies
- School or class-wide anxiety screening
- Individualized social–emotional–behavioral assessment
- Universal (school-wide or class-wide) interventions or programming for anxiety/stress reduction
- We currently do not provide prevention and intervention services for anxious youth.

The following question will be answered on a scale from 1 to 6, with 1 being not very important and 6 being very important. How important do you feel it is to use programs that are evidenced-based when treating anxiety in the schools?

When providing interventions for anxiety in your school, which of the following evidenced-based intervention programs/strategies do you and/or your district implement (if, and when, you receive an anxiety referral) for prevention and intervention services? Please select all that apply:

- Camp Cope-a-Lot (Computer based Coping Cat)
- The C.A.T. Project
- Cognitive Behavioral Interventions for Trauma in Schools (CBITS)
- Coping Cat
- Cool Kids Child and Adolescent Anxiety Program: School Version
- FRIENDS for Life
- Modular Cognitive-Behavioral Therapy for Childhood Anxiety Disorders (Chorpita)
- Ready....Set....R.E.L.A.X.
- Relaxation Training
- Skills for Social and Academic Success (SSAS)
- Social Effectiveness Therapy for Children (SET-C)
- Strong Start, Kids, or Teens Program
- Transfer of Control Approach
- Queensland Early Intervention and Prevention of Anxiety Project
____ We currently do not implement any evidenced-based intervention programs for anxious youth.
____ Other (Please list) ________________________________________________

When considering potential barriers to implementing anxiety prevention and intervention services in your school setting, please select and rank your top 3, with 1 being the largest/strongest barrier:

____ Available time
____ Available resources
____ Cost of services
____ Difficulties implementing exposure activities as part of CBT
____ Feasibility of training teachers and staff for delivering treatment
____ Lack of training and/or professional development
____ Limited familiarity with anxiety intervention
____ Other job responsibilities taking precedence
____ Parental consent
____ Support of key-stakeholders
____ Willingness of child to participate
____ I currently do not see any barriers to implementing anxiety prevention and intervention services in my school district.
____ Other (Please list) ________________________________________________

Thank you for participating in this survey!

If you are interested in being entered to win one of four $25 Amazon gift cards, please send the code ANXIETYSURVEY to anxietysurvey.ud@gmail.com. You will be notified in May via the e-mail address you send the code from if your e-mail address is selected in the drawing and your mailing address will be requested at that time so you can receive your gift card.
Dear Participant,

This letter is a request for you to take part in an important research project entitled: *Current Assessments and Interventions to Identify and Treat Anxiety in the School Setting: A Survey of School Psychologists.* This project is being conducted by Dr. Elana Bernstein, a clinical faculty member in the Department of Counselor Education and Human Services at the University of Dayton along with graduate students, Brad Fletcher, MS and Brooke Gosser, MS. Your participation in this project is voluntary and greatly appreciated. Participation in the survey will take approximately 10 minutes.

Your involvement in this project is completely confidential. No information collected in the survey will be connected back to your identity as a participant. All data will be reported in the aggregate, thus your name will not be connected with your responses in any published use of the data. You must be 18 years of age or older to participate. Your participation is completely voluntary. By clicking the attached link to the survey you are providing your consent to participate. You may skip any question that you do not wish to answer and you may discontinue your participation at any time. The University of Dayton’s Institutional Review Board’s acknowledgement of this research project is on file.

At the end of the survey you will be provided with the opportunity to enter to win one of four $25 Amazon gift cards. Participants who wish to enter the drawing may email the identified survey code to the following email address: anxietysurvey.ud@gmail.com. You will be notified in May via the e-mail address you send the code from if your e-mail address is selected in the drawing. Your mailing address will be requested at that time so you can receive your gift card.

We hope that you will participate in this research project, as it may be beneficial in understanding various barriers associated with delivering evidenced-based services for identifying and treating anxiety in the school setting. Thank you for your time. Should you have any questions about this letter, the survey, or the research project, please feel free to contact Dr. Elana Bernstein at (937) 229-3624 or by e-mail at ebernstein1@udayton.edu.

Thank you for your time and help with this important project.

Sincerely,

Elana R. Bernstein, PhD
Clinical Faculty

Brad Fletcher, MS
Graduate Researcher

Brooke Gosser, MS
Graduate Researcher
Research Opportunity:

Faculty and Graduate students from the University of Dayton are seeking your help to complete an important research study. Please volunteer to take part in a 10 minute, electronic survey:

**Current Assessments and Interventions to Identify and Treat Anxiety in the School Setting:**

**A Survey of School Psychologists**

All participants will be given the opportunity to enter to win one of four $25 Amazon gift cards.

*This research opportunity was emailed to all OSPA members via the OSPA listserv. If you have already taken part in this electronic survey via the emailed link, please do not participate in the survey again.*